

dugan production corp.

Mr. David Albright – Ground Water Manager
United States Environmental Protection Agency
USEPA Region 9
WTR-9, 75 Hawthorn Street
San Francisco, CA 95104

March 20, 2007

**--CERTIFIED MAIL, RETURN RECEIPT REQUESTED--
7005 1820 0001 6168 8359**

Re: Application to Class 2, water disposal well, West Bisti SWD #1 San Juan County, NM

Dear Mr. Albright:

Enclosed, is Dugan Production Corp.'s application for disposal of produced water in the proposed West Bisti SWD #1. In fulfilling the requirements of application, the following materials are provided herein:

1. Permit Application for Underground Injection Control, EPA Form 7520-06 (Rev.8-91).
2. Tabular and schematic data on proposed injection well.
3. Data sheet of wells within 1-mile of proposed injection well, highlighting those wells inside one-half mile radius (area of review) around the injection well. No wells within the area of review penetrate the proposed injection zone (Entrada Sandstone).
4. Operations plan for proposed injection well.
5. Water Analysis of produced water to be disposed of in the proposed injection well (Fruitland Coal and Gallup).
6. Verification of resources necessary to plug and abandon the proposed injection well with a letter of credit in the amount of \$31,000.00, with the U.S. EPA noted as beneficiary.
7. Plugging and Abandonment Plan, EPA Form 7520-14 (Rev. 8-01).

The proposed well will be a private facility used for the disposal of produced water from oil and gas wells owned and operated only by Dugan Production Corp.

The well will be located on split estate lands. The surface estate is Navajo Tribal Trust and the mineral estate is Federal. Appropriate applications for disposal have been submitted to The Navajo Nation and the New Mexico Oil Conservation Division. The Bureau of Land Management and all offsetting operators have been notified by certified mail of this application. Also, notice has been published in the Farmington Daily Times informing the public of the application.

If you have questions or need additional information, please contact me.

Very Sincerely,


A handwritten signature in cursive script that reads "Kurt Fagrelus".

Kurt Fagrelus
Vice President, Exploration

Attachments

cc: Mr. James Walker
United States Environmental Protection Agency
Ground Water Quality
1235 La Plata Highway
Farmington, New Mexico 87401

Mr. Bill Freeman
Navajo Nation Environmental Protection Agency
Underground Injection Control
PO Box 1999
Shiprock, New Mexico 87420-1999

 United States Environmental Protection Agency Underground Injection Control Permit Application (Collected under the authority of the Safe Drinking Water Act. Sections 1421, 1422, 40 CFR 144)					I. EPA ID Number <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			T/A	C				
Read Attached Instructions Before Starting For Official Use Only													
Application approved mo day year			Date received mo day year			Permit Number		Well ID		FINDS Number			
<div style="border: 1px solid black; height: 20px; width: 100%;"></div>			<div style="border: 1px solid black; height: 20px; width: 100%;"></div>			<div style="border: 1px solid black; height: 20px; width: 100%;"></div>		<div style="border: 1px solid black; height: 20px; width: 100%;"></div>		<div style="border: 1px solid black; height: 20px; width: 100%;"></div>			
II. Owner Name and Address						III. Operator Name and Address							
Owner Name <div style="border: 1px solid black; padding: 2px;">Dugan Production Corp.</div>						Owner Name <div style="border: 1px solid black; padding: 2px;">Dugan Production Corp.</div>							
Street Address <div style="border: 1px solid black; padding: 2px;">709 East Murray Drive</div>				Phone Number <div style="border: 1px solid black; padding: 2px;">325-1821</div>		Street Address <div style="border: 1px solid black; padding: 2px;">709 East Murray Drive</div>				Phone Number <div style="border: 1px solid black; padding: 2px;">325-1821</div>			
City <div style="border: 1px solid black; padding: 2px;">Farmington</div>			State <div style="border: 1px solid black; padding: 2px;">NM</div>	ZIP CODE <div style="border: 1px solid black; padding: 2px;">87401</div>		City <div style="border: 1px solid black; padding: 2px;">Farmington</div>			State <div style="border: 1px solid black; padding: 2px;">NM</div>	ZIP CODE <div style="border: 1px solid black; padding: 2px;">87401</div>			
IV. Commercial Facility			V. Ownership		VI. Legal Contact			VII. SIC Codes					
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator			1311 - SIC 2311111 - NAICS					
VIII. Well Status (Mark "x")													
<input type="checkbox"/> A Operating		Date Started mo day year <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		<input type="checkbox"/> B. Modification/Conversion			<input checked="" type="checkbox"/> C. Proposed						
IX. Type of Permit Requested (Mark "x" and specify if required)													
<input checked="" type="checkbox"/> A. Individual		<input type="checkbox"/> B. Area		Number of Existing Wells <div style="border: 1px solid black; text-align: center;">---</div>		Number of Proposed Wells <div style="border: 1px solid black; text-align: center;">1</div>		Name(s) of field(s) or project(s) <div style="border: 1px solid black; padding: 2px;">West Bisti SWD #1</div>					
X. Class and Type of Well (see reverse)													
A. Class(es) (enter code(s)) <div style="border: 1px solid black; text-align: center;">II</div>		B. Type(s) (enter code(s)) <div style="border: 1px solid black; text-align: center;">D</div>		C. If class is "other" or type is code 'x,' explain <div style="border: 1px solid black; text-align: center;">---</div>				D. Number of wells per type (if area permit) <div style="border: 1px solid black; text-align: center;">---</div>					
XI. Location of Well(s) or Approximate Center of Field or Project										XII. Indian Lands (Mark "x")			
Latitude			Longitude			Township and Range							
Deg	Min	Sec	Deg	Min	Sec	Sec	Twp	Range	1/4 Sec	Feet From	Line	Feet From	Line
36	27	42	108	11	9	35	26N	13W	NE	2500	N	1855	E
XIII. Attachments													
(Complete the following questions on a separate sheet(s) and number accordingly; see instructions) For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A--U (pp 2-6) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.													
XIV. Certification													
I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)													
A. Name and Title (Type or Print) <div style="border: 1px solid black; padding: 2px;">Kurt Fagrellius, Vice President Exploration</div>										B. Phone No. (Area Code and No.) <div style="border: 1px solid black; padding: 2px;">505-325-1821</div>			
C. Signature <div style="border: 1px solid black; padding: 2px;">Kurt Fagrellius</div>										D. Date Signed <div style="border: 1px solid black; padding: 2px;">3-20-07</div>			

Well Class and Type Codes

Class I Wells used to inject waste below the deepest underground source of drinking water.

Type "I" Nonhazardous industrial disposal well
 "M" Nonhazardous municipal disposal well
 "W" Hazardous waste disposal well injecting below USDWs
 "X" Other Class I wells (not included in Type "I," "M," or "W")

Class II Oil and gas production and storage related injection wells.

Type "D" Produced fluid disposal well
 "R" Enhanced recovery well
 "H" Hydrocarbon storage well (excluding natural gas)
 "X" Other Class II wells (not included in Type "D," "R," or "H")

Class III Special process injection wells.

Type "G" Solution mining well
 "S" Sulfur mining well by Frasch process
 "U" Uranium mining well (excluding solution mining of conventional mines)
 "X" Other Class III wells (not included in Type "G," "S," or "U")

Other Classes Wells not included in classes above.

Class V wells which may be permitted under §144.12.

Wells not currently classified as Class I, II, III, or V.

Attachments to Permit Application

Class	Attachments
I new well	A, B, C, D, F, H – S, U
existing	A, B, C, D, F, H – U
II new well	A, B, C, E, G, H, M, Q, R; optional – I, J, K, O, P, U
existing	A, E, G, H, M, Q, R, – U; optional – J, K, O, P, Q
III new well	A, B, C, D, F, H, I, J, K, M – S, U
existing	A, B, C, D, F, H, J, K, M – U
Other Classes	To be specified by the permitting authority

Application for Authorization to Inject

Dugan Production Corp.

West Bisti SWD #1

General Information

Dugan Production Corp. is hereby, making application for approval to dispose of produced water by underground injection. The proposed disposal site is the West Bisti SWD #1 well, located 2500' FNL & 1855' FEL, Sec. 35, Twn. 26N, Rng. 13W, San Juan Co., NM. Produced water will be injected into the Entrada Sandstone between 6915' and 7115'. The maximum injection pressure will be 1383 psi and the maximum injection rate will be 6,000 barrels of water daily.

The well will be a new drill for the purpose of salt water disposal. The permit to drill is pending. Upon approval, plans are to begin drilling the well in September or October of 2007. Upon approval of this application, an injection test will be conducted. If adequate rates are not found, it may be necessary to stimulate the proposed injection zone or perforate additional zones in the well.

The proposed well will be a private facility used for the disposal of produced water from oil and gas wells only operated and owned by Dugan Production Corp..

Any change to the plans contained herein, will be approved by the United States Environmental Protection Agency, Navajo Nation Environmental Protection Agency and the New Mexico Oil Conservation Division prior to implementation.

Application for Authorization to Inject

Dugan Production Corp.

West Bisti SWD #1

Attachments for Permit Application

- A. Area of Review Method – The area of review is a fixed radius of ½ mile from the well bore of the West Bisti SWD #1 located 2500' FNL & 1855' FEL, Sec. 35, Twn. 26N, Rng. 13W, San Juan Co., NM.
- B. Map of Well/Area and Area of Review – Topographic map extending one mile beyond proposed injection well (Exhibit B.). This map shows the area of review, and all wells located in the area.
- C. Corrective Action Plan and Well Data – Tabulation of data gathered from public records for all wells shown on Exhibit B is shown on Exhibit C. None of the wells within the area of review penetrate the proposed injection zone.
- E. Name and Depth of USDW's – There are no known USDW's in the area. The Ojo Alamo Sandstone is a potential USDW in the area. The Ojo Alamo is at or near the surface in the area and will be covered by surface casing and cement in the proposed well (Ojo Alamo top 75', base 175'). The Cliff House member of the Mesaverde Group is also considered a potential USDW in the area. The Cliff House will be covered by casing and cement in the proposed well (Cliff House top 2040', base 2120').
- G. Geologic Data on Injection and Confining Zones – The injection zone is the Entrada Sandstone, and the confining zones are the Todilto Formation (top) and Chinle Formation (bottom).

The Todilto Formation is comprised of interbedded anhydrite and thin bedded limestone. The Todilto is expected to be encountered at a depth of 6895' and be 20' thick in the proposed well. The Todilto is a tight, impervious zone that does not produce hydrocarbon or water.

The Entrada Sandstone is comprised of well sorted quartz sandstone. The Entrada is expected to be encountered at a depth of 6915' and be 200' thick in the proposed well. The Entrada is a highly porous zone (16-19% porosity) with excellent permeability (300-500 md). The Entrada does not produce hydrocarbons in the area.

The Chinle Formation is comprised of silty shale and siltstone. The Chinle may be encountered at a depth of 7115' and approximately 50' of the formation will

be drilled. The Chinle is a dense, tight, impervious zone that does not produce hydrocarbon or water.

The observed fracture gradient in the San Juan Basin is 0.65 psi/ft. This gradient would result in a fracture pressure of 4841 psi at the top perforation in the Entrada in the proposed well. Injection pressure will be limited to 0.2 psi/ft or 1383 psi (surface pressure) by the State of New Mexico Oil Conservation Division or 4380 psi (bottom hole pressure).

- H. Operating Data – Average injection rate will be 5,000 bwpd with a maximum rate of 6,000 bwpd. Average injection pressure will be 1250 psi and the maximum injection pressure will be 1383 psi (surface pressure).

The source of injected water will be produced water from Fruitland Coal and Gallup Sandstone wells in the area (T25N and T26N, R12W and R13W). Attachments H-5a., H-5b. and H-5c. are analyses of the Fruitland Coal and Gallup water in the immediate area. The water to be injected is compatible with the water in the disposal zone.

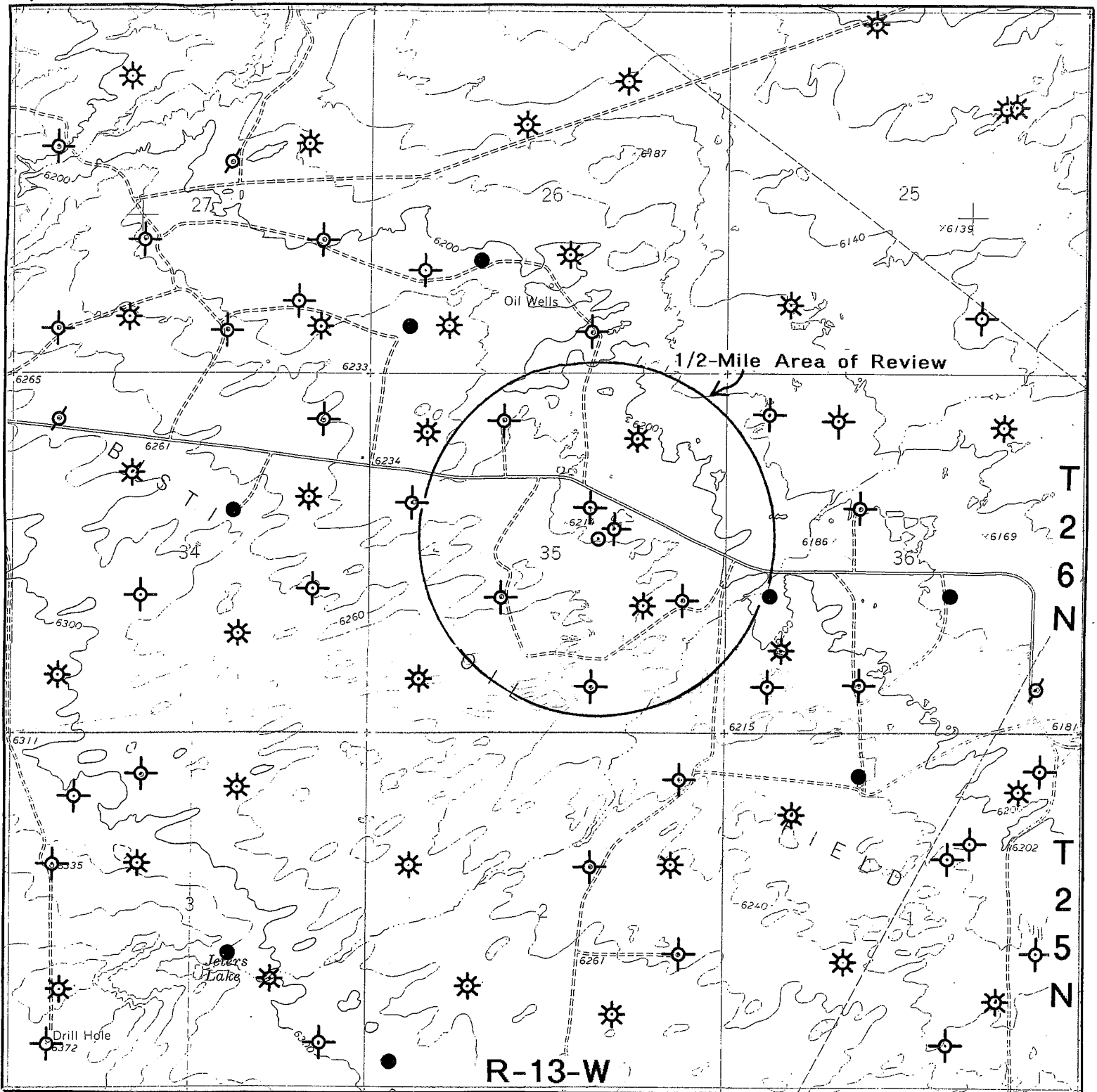
Annulus fluid will be a water based packer fluid (Techni-Hib 606) containing corrosion inhibitors.

- M. Construction Details – Construction details for the proposed well-bore are shown and described in Exhibit M-1. and M-2. The proposed disposal well is located on the same site as the existing West Bisti Unit Disposal Facilities shown in Exhibit M-3. These existing facilities will be used store, handle, treat and pump produced water into the proposed disposal well.

- Q. Plugging and Abandonment Plan – See attached Plugging and Abandonment Plan.

- R. Necessary Resources -

EXHIBIT B.



Dugan Production Corp.
West Bisti SWD #1
Sec. 35, T26N, R13W
2500' FNL and 1855' FEL
San Juan County, New Mexico
Salt Water Disposal Application

EXHIBIT C. Tabulation of Data on Offset Wells.

Dugan Production Corp., WEST BISTI SWD #1, S.35, T26N, R13W

OPERATOR	WELL NAME	WELL NO.	TWN	RGE	SEC	UL	FTG NS	FTG EW	STATUS	POOL	TD
CALPINE NTRL GAS	STRIDER	25	26N	13W	25	C	200/N	2180/W	CO	FRUIT COAL	1384
RUNNING HORSE	DOVE FED	1	26N	13W	25	H	1450/N	1190/E	CO	FRUIT SAND PC	1340
CALPINE NTRL GAS	GALLEGOS FED	1	26N	13W	25	H	1434/N	1041/E	CO	FRUIT COAL	1385
TEXAKOMA O&G	BLACK HILLS	1	26N	13W	25	M	1000/S	1000/W	CO	FRUIT COAL	1365
S UNION EXPL CO	SX FED 25	1	26N	13W	25	O	810/S	1520/E	PA	PICT CLIFFS	1304
MERRION O&G	SERENDIPITY	4	26N	13W	26	B	1080/N	1450/E	CO	FRUIT COAL	1395
MERRION O&G	SERENDIPITY	5	26N	13W	26	F	1710/N	2370/W	CO	FRUIT COAL	1400
MERRION O&G	SERENDIPITY	1	26N	13W	26	J	1650/S	2310/E	ZA	GALLUP	5120
MERRION O&G	SERENDIPITY COM	1	26N	13W	26	J	1650/S	2310/E	CO	FRUIT COAL	5120
DUGAN PROD	W BISTI UNIT	135	26N	13W	26	K	1650/S	1650/W	CO	GALLUP	5078
MERRION O&G	SERENDIPITY	3	26N	13W	26	L	1500/S	900/W	PA	FRUIT COAL	1385
MERRION O&G	SERENDIPITY	3R	26N	13W	26	M	691/S	1268/W	CO	FRUIT COAL	1462
DUGAN PROD	W BISTI UNIT	137	26N	13W	26	M	660/S	660/W	CO	GALLUP	5108
DUGAN PROD	W BISTI UNIT	136	26N	13W	26	O	660/S	1978/E	PA	GALLUP	5165
DUGAN PROD	PATRIOT	90S	26N	13W	27	C	990/N	1845/W	CO	FRUIT COAL	1425
DUGAN PROD	W BISTI UNIT	126	26N	13W	27	E	1980/N	660/W	PA	GALLUP	5165
DUGAN PROD	W BISTI UNIT	125	26N	13W	27	G	2163/N	2031/E	WI	GALLUP SWD	5074
DUGAN PROD	PATRIOT	91	26N	13W	27	H	1980/N	790/E	CO	FRUIT COAL	1370
DUGAN PROD	W BISTI UNIT	134	26N	13W	27	I	1980/S	660/E	PA	GALLUP	5080
DUGAN PROD	W BISTI UNIT	133	26N	13W	27	K	1980/S	1980/W	PA	GALLUP	5130
DUGAN PROD	W BISTI UNIT	140	26N	13W	27	M	660/S	660/W	PA	GALLUP	5100
DUGAN PROD	PATRIOT	90	26N	13W	27	N	790/S	1850/W	CO	FRUIT COAL	1420
CHEVRON USA	W BISTI UNIT	139	26N	13W	27	O	660/S	2080/E	PA	GALLUP	5065
DUGAN PROD	PATRIOT	91S	26N	13W	27	P	660/S	660/E	CO	FRUIT COAL	1420
DUGAN PROD	W BISTI UNIT	145	26N	13W	34	A	660/N	660/E	PA	GALLUP	5120
DUGAN PROD	W BISTI UNIT	144	26N	13W	34	D	660/N	660/W	WI	GALLUP SWD	5185
DUGAN PROD	CISCO COM	91S	26N	13W	34	F	1500/N	1850/W	CO	FRUIT COAL	1480
DUGAN PROD	W BISTI UNIT	152	26N	13W	34	G	1980/N	1980/E	CO	GALLUP	5082
DUGAN PROD	SALGE FED A	94	26N	13W	34	H	1800/N	790/E	CO	FRUIT COAL	1370
BRITISH-AMER OIL	SALGE B	3	26N	13W	34	I	2090/S	715/E	PA	GALLUP	5075
DUGAN PROD	SALGE FED A	94S	26N	13W	34	J	1450/S	1850/E	CO	FRUIT COAL	1430
BRITISH-AMER OIL	SALGE	4	26N	13W	34	K	1980/S	1980/W	PA	GALLUP	5075

Wells within 1/2-mile area of review are shaded (grey). No wells within the area of review penetrate the proposed injection zone.

EXHIBIT C. Tabulation of Data on Offset Wells.

Dugan Production Corp., WEST BISTI SWD #1, S.35, T26N, R13W

OPERATOR	WELL NAME	WELL NO.	TWN	RGE	SEC	UL	FTG NS	FTG EW	STATUS	POOL	TD
DUGAN PROD	CISCO COM	91	26N	13W	34	M	790/S	790/W	CO	FRUIT COAL	1420
DUGAN PROD	W BISTI SWD	1	26N	13W	35	G	2500/N	1855/E	PE	ENTRADA SWD	7165
DUGAN PROD	JETER	5	26N	13W	35	A	990/N	1300/E	CO	FRUIT COAL	1360
DUGAN PROD	W BISTI UNIT	146	26N	13W	35	C	660/N	1980/W	PA	GALLUP	5077
DUGAN PROD	JETER	5S	26N	13W	35	D	900/N	900/W	CO	FRUIT COAL	1420
DUGAN PROD	W BISTI UNIT	151	26N	13W	35	E	1880/N	660/W	PA	GALLUP	5055
DUGAN PROD	W BISTI UNIT	149	26N	13W	35	G	2310/N	1650/E	PA	WATER WELL	2540
DUGAN PROD	W BISTI UNIT	150	26N	13W	35	G	1980/N	1980/E	PA	GALLUP	5075
DUGAN PROD	JETER	3S	26N	13W	35	I	1850/S	1200/E	CO	FRUIT COAL	1345
DUGAN PROD	W BISTI UNIT	154	26N	13W	35	I	1980/S	660/E	PA	GALLUP	5000
DUGAN PROD	W BISTI UNIT	153	26N	13W	35	K	1990/S	1960/W	PA	GALLUP	5050
DUGAN PROD	JETER	3	26N	13W	35	M	790/S	790/W	CO	FRUIT COAL	1320
DUGAN PROD	W BISTI UNIT	159	26N	13W	35	O	660/S	1980/E	PA	GALLUP	4975
REDWOLF PROD	BEAR	1	26N	13W	36	A	790/N	1190/E	CO	FRUIT COAL	1309
DUGAN PROD	W BISTI UNIT	147	26N	13W	36	D	660/N	660/W	PA	GALLUP	5051
DUGAN PROD	W BISTI UNIT	148	26N	13W	36	F	1980/N	1980/W	PA	GALLUP	5075
DUGAN PROD	W BISTI UNIT	156	26N	13W	36	J	1980/S	1980/E	CO	GALLUP	5028
DUGAN PROD	W BISTI UNIT	155	26N	13W	36	L	1980/S	660/W	CO	GALLUP	5005
CHEVRON USA INC	W BISTI UNIT	168	26N	13W	36	M	660/S	660/W	PA	GALLUP	4886
SG INTEREST I LTD	W BISTI ST	2	26N	13W	36	M	1192/S	819/W	CO	FRUIT COAL	1380
DUGAN PROD	W BISTI UNIT	158	26N	13W	36	N	660/S	1980/W	PA	GALLUP	5050
DUGAN PROD	W BISTI UNIT	157	26N	13W	36	P	660/S	660/E	WI	GALLUP SWD	5042
REDWOLF PROD	BEAR 1S	2	26N	13W	36	C	770/N	1666/W	SP	FRUIT COAL	1355
DUGAN PROD	W BISTI UNIT	161	25N	13W	01	A	600/N	600/E	PA	GALLUP	5000
DUGAN PROD	JETER	4	25N	13W	01	A	875/N	945/E	CO	FRUIT COAL	1275
DUGAN PROD	W BISTI UNIT	160	25N	13W	01	C	660/N	1980/W	CO	GALLUP	4951
DUGAN PROD	W BISTI UNIT	162	25N	13W	01	G	1880/N	1980/E	PA	GALLUP	5000
GULF OIL CORP	MARYE FED	9	25N	13W	01	G	1650/N	1650/E	PA	PICT CLIFFS	1350
GULF OIL CORP	W BISTI UNIT	164	25N	13W	01	I	1980/S	660/E	PA	GALLUP	5031
DUGAN PROD	JETER	1	25N	13W	01	K	1850/S	1800/W	ZA	PICT CLIFFS	1334
DUGAN PROD	JETER	1	25N	13W	01	K	1850/S	1800/W	CO	FRUIT COAL	1334
DUGAN PROD	W BISTI UNIT	165	25N	13W	01	O	660/S	1980/E	PA	GALLUP	5000
DUGAN PROD	JETER	4S	25N	13W	01	D	1300/N	1000/W	CO	FRUIT COAL	1400

Wells within 1/2-mile area of review are shaded (grey). No wells within the area of review penetrate the proposed injection zone.

EXHIBIT C. Tabulation of Data on Offset Wells.

Dugan Production Corp., WEST BISTI SWD #1, S.35, T26N, R13W

OPERATOR	WELL NAME	WELL NO.	TWN	RGE	SEC	UL	FTG NS	FTG EW	STATUS	POOL	TD
DUGAN PROD	JETER	1S	25N	13W	01	P	1300/S	1300/E	CO	FRUIT COAL	1370
EL PASO NAT GAS	KELLY ST	9	25N	13W	02	A	660/N	660/E	PA	GALLUP	4978
DUGAN PROD	BISTI ST	1	25N	13W	02	E	1980/N	660/W	ZA	GALLUP	5050
DUGAN PROD	BISTI ST	1	25N	13W	02	E	1980/N	660/W	CO	FRUIT COAL	5050
EL PASO NAT GAS	KELLY ST	10	25N	13W	02	G	1986/N	1980/E	PA	GALLUP	5010
DUGAN PROD	BISTI ST	90	25N	13W	02	H	1980/N	790/E	CO	FRUIT COAL	1320
EL PASO NAT GAS	KELLY ST	11	25N	13W	02	I	1978/S	660/E	PA	GALLUP	5016
DUGAN PROD	BISTI ST COM	1	25N	13W	02	M	330/S	330/W	CO	GALLUP	5050
DUGAN PROD	BISTI ST COM	1S	25N	13W	02	K	1500/S	1500/W	CO	FRUIT COAL	1440
DUGAN PROD	BISTI ST	90S	25N	13W	02	O	1100/S	1650/E	CO	FRUIT COAL	1420
DUGAN PROD	SALGE FED A COM	90	25N	13W	03	B	790/N	1850/E	CO	FRUIT COAL	1370
GULF OIL CORP	SALGE A	3	25N	13W	03	C	660/N	1980/W	PA	GALLUP	5123
BRITISH-AMER OIL	M J SALGE	1	25N	13W	03	D	990/N	990/W	PA	PICT CLIFFS	1446
DUGAN PROD	W BISTI UNIT	163	25N	13W	03	E	1980/N	660/W	PA	GALLUP	5250
DUGAN PROD	CISCO COM	90S	25N	13W	03	F	2000/N	1980/W	CO	FRUIT COAL	1480
DUGAN PROD	SALGE FED A	4	25N	13W	03	J	1980/S	1980/E	CO	GALLUP	5200
DUGAN PROD	CISCO COM	90	25N	13W	03	L	1450/S	840/W	CO	FRUIT COAL	1500
BRITISH-AMER OIL	SALGE C	1	25N	13W	03	M	660/S	660/W	PA	GALLUP	5200
ELM RIDGE RES	S BISTI SWD	1	25N	13W	03	P	660/S	660/E	PA	GALLUP	5044
DUGAN PROD	SALGE FED A COM	90S	25N	13W	03	K	1620/S	1345/E	CO	FRUIT COAL	1540

Wells within 1/2-mile area of review are shaded (grey). No wells within the area of review penetrate the proposed injection zone.

H-5a.

ENVIROTECH LABS

CATION / ANION ANALYSIS

FRUITLAND COAL SE/4, Sec.23, T26N, R13W

Client:	Dugan Prod. Corp	Project #:	06094-003
Sample ID:	Paul Revere 91-S	Date Reported:	01-26-07
Laboratory Number:	39831	Date Sampled:	01-23-07
Chain of Custody:	1958	Date Received:	01-24-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-25-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	7.56	S.U.		
Conductivity @ 25° C	28,200	umhos/cm		
Total Dissolved Solids @ 180C	16,640	mg/L		
Total Dissolved Solids (Calc)	16,600	mg/L		
SAR	134	ratio		
Total Alkalinity as CaCO3	1,020	mg/L		
Total Hardness as CaCO3	424	mg/L		
Bicarbonate as HCO3	1,020	mg/L	16.72	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.4	mg/L	0.01	meq/L
Nitrite Nitrogen	0.015	mg/L	0.00	meq/L
Chloride	9,500	mg/L	268.00	meq/L
Fluoride	0.57	mg/L	0.03	meq/L
Phosphate	1.0	mg/L	0.03	meq/L
Sulfate	<0.1	mg/L	0.00	meq/L
Iron	0.017	mg/L	0.00	meq/L
Calcium	94.4	mg/L	4.71	meq/L
Magnesium	45.9	mg/L	3.78	meq/L
Potassium	2.75	mg/L	0.07	meq/L
Sodium	6,340	mg/L	275.79	meq/L
Cations			284.35	meq/L
Anions			284.78	meq/L
Cation/Anion Difference			0.15%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Christopher J. Walter
Analyst

Shawn P. O'Brien
Review

H-5b.

ENVIROTECH LABS

12750 15th St. NE, Suite 100, Redmond, WA 98073

CATION / ANION ANALYSIS

FRUITLAND COAL SE/4, Sec. 35, T26N, R13W

Client:	Dugan Prod. Corp	Project #:	05094-006
Sample ID:	Water #35	Date Reported:	01-26-07
Laboratory Number:	39632	Date Sampled:	01-23-07
Chain of Custody:	1956	Date Received:	01-24-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-25-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	7.12	s.u.		
Conductivity @ 25° C	15,920	umhos/cm		
Total Dissolved Solids @ 180C	9,640	mg/L		
Total Dissolved Solids (Calc)	9,630	mg/L		
SAR	105	ratio		
Total Alkalinity as CaCO3	420	mg/L		
Total Hardness as CaCO3	232	mg/L		
Bicarbonate as HCO3	420	mg/L	6.88	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.9	mg/L	0.01	meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00	meq/L
Chloride	5,600	mg/L	157.98	meq/L
Fluoride	0.68	mg/L	0.04	meq/L
Phosphate	3.2	mg/L	0.10	meq/L
Sulfate	<0.1	mg/L	0.00	meq/L
Iron	67.8	mg/L	2.43	meq/L
Calcium	56.0	mg/L	2.79	meq/L
Magnesium	22.5	mg/L	1.85	meq/L
Potassium	<0.01	mg/L	0.00	meq/L
Sodium	3,690	mg/L	160.52	meq/L
Cations			165.16	meq/L
Anions			165.01	meq/L
Cation/Anion Difference			0.09%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Mistie M. Walters
Analyst

Steven C. Olsen
Review

H-5c.

ENVIROTECH LABS

CATION / ANION ANALYSIS

GALLUP SANDSTONE SW/4, Sec. 2, T25N, R13W

Client:	Dugan Prod. Corp.	Project #:	08094-003
Sample ID:	Bisti State Coin #1	Date Reported:	01-26-07
Laboratory Number:	29832	Date Sampled:	01-23-07
Chain of Custody:	1956	Date Received:	01-24-07
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	01-25-07
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		
pH	7.36	s.u.		
Conductivity @ 25° C	48,100	umhos/cm		
Total Dissolved Solids @ 180C	30,760	mg/L		
Total Dissolved Solids (Calc)	30,840	mg/L		
SAR	205	ratio		
Total Alkalinity as CaCO ₃	560	mg/L		
Total Hardness as CaCO ₃	628	mg/L		
Bicarbonate as HCO ₃	560	mg/L	9.18	meq/L
Carbonate as CO ₃	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.8	mg/L	0.01	meq/L
Nitrite Nitrogen	0.005	mg/L	0.00	meq/L
Chloride	18,400	mg/L	519.06	meq/L
Fluoride	1.36	mg/L	0.07	meq/L
Phosphate	4.4	mg/L	0.14	meq/L
Sulfate	<0.1	mg/L	0.00	meq/L
Iron	1.78	mg/L	0.06	meq/L
Calcium	181	mg/L	9.03	meq/L
Magnesium	43.0	mg/L	3.54	meq/L
Potassium	31.8	mg/L	0.81	meq/L
Sodium	11,840	mg/L	515.04	meq/L
Cations			528.42	meq/L
Anions			528.47	meq/L
Cation/Anion Difference			0.01%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Analyst

Review

EXHIBIT M-1.

INJECTION WELL DATA SHEET

OPERATOR: Dugan Production Corp.

WELL NAME & NUMBER: West Bisti SWD #1

WELL LOCATION: 2500' FNL and 1855' FWL

FOOTAGE LOCATION

UNIT LETTER

SECTION

TOWNSHIP

RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4"

Casing Size: 8-5/8"

Cemented with: 220

sx.

Ø"

300

ft³

Top of Cement: Surface

Method Determined: Will Circulate

Intermediate Casing

Hole Size:

Casing Size:

Cemented with:

sx.

Ø"

ft³

Top of Cement:

Method Determined:

Production Casing

Hole Size: 7-7/8"

Casing Size: 5-1/2"

Cemented with: 750

sx.

Ø"

1540

ft³

Top of Cement: Surface

Method Determined: Will Circulate

Total Depth: 7165'

Injection Interval

6915

feet to

7115

(Perforated for Open Hole; indicate which)

Dugan Production Corp.
West Bisti SWD #1
Sec. 35, T26N, R13W
2500' FNL and 1855' FEL
San Juan County, New Mexico
Salt Water Disposal Application

Total Depth 7165'

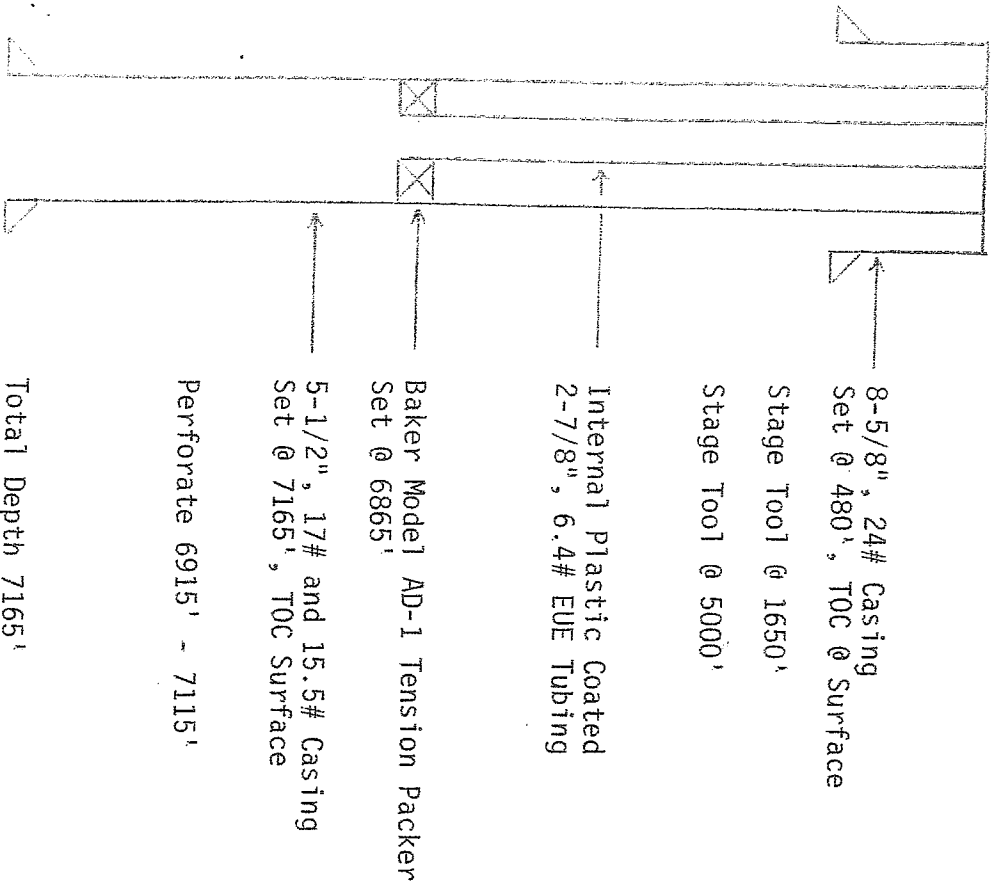


EXHIBIT M-2.

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" Lining Material: Plastic

Type of Packer: Baker Model AD-1 set in tension (5-1/2")

Packer Setting Depth: 6865' (50' above uppermost perforation)

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Entrada Sandstone

3. Name of Field or Pool (if applicable): Not Applicable

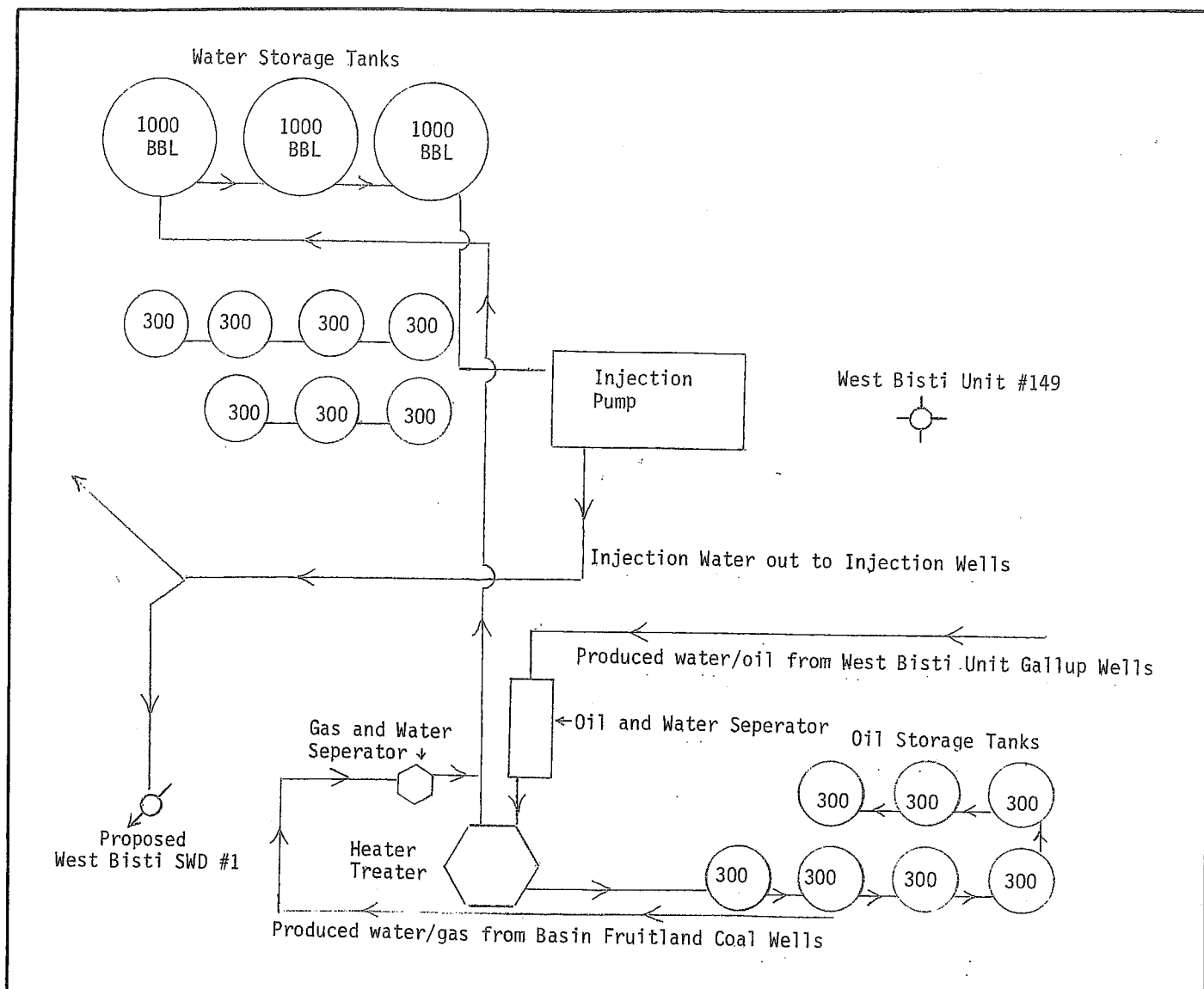
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. New well, will be drilled for purpose of injection into Entrada Ss., no other zones will be perf'd.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Fruitland Coal 800', Gallup Ss. 4600'.

Dugan Production Corp.
West Bisti SWD #1
Sec. 35, T26N, R13W
2500' FNL and 1855' FEL
San Juan County, New Mexico

Salt Water Disposal Application

EXHIBIT M-3.



Anticipated Disposal Facilities

Dugan Production Corp.
 West Bisti SWD #1
 Sec. 35, T26N, R13W
 2500' FNL and 1855' FEL
 San Juan County, New Mexico

 Salt Water Disposal Application

NOTE: The proposed West Bisti SWD #1 disposal well will be the only new facility, all other facilities shown in diagram currently exist.

**WELLS
FARGO**

**WELLS FARGO BANK, N.A.
TRADE SERVICES DIVISION, NORTHERN CALIFORNIA
ONE FRONT STREET, 21ST FLOOR
SAN FRANCISCO, CALIFORNIA 94111
1 800 798 2815 OPTION 1
Email: sftrade@wellsfargo.com**

IRREVOCABLE STANDBY LETTER OF CREDIT

To: US Environmental Protection Agency
Regional Administrator
Attn: Underground Injection Control
Financial Responsibility
U.S. EPA Region IX
75 Hawthorne Street
San Francisco, CA 94106-3901

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit Number NZS592729 in your favor at the request and for the account of Dugan Production Corp., 709 E. Murray Drive, Farmington, NM 87401 up to the aggregate amount of Thirty One Thousand and 00/100 United States Dollars (US\$31,000.00) available upon presentation of:

1. Your sight draft, bearing reference to this letter of credit number NZS592729.
2. Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Safe Drinking Water Act."

This Letter of Credit is effective as of March 19, 2007 and shall expire on April 11, 2008, but such expiration date shall be automatically extended for a period of one year on April 11, 2008 and each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and Dugan Production Corp. by certified mail or express courier (e.g. DHL, FedEx, Airborne, UPS or similar national express courier services) to your addresses above, that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available to you by presentation to us at our above address, of your sight draft for 120 days after the later of the date(s) of receipt by both you and Dugan Production Corp., as shown on the signed return receipts or the delivery records of the express courier service.

Whenever this letter is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of Dugan Production Corp. in accordance with your instructions.


(Signature)

March 19, 2007

Dawn Shinsato
Assistant Vice President
415 396 8364
Wells Fargo Bank, N.A.
Trade Services Division, Northern California
One Front Street, 21st Floor
San Francisco, CA 94111

MAR-19-2007 MON 01:02 PM

FAX NO.

P. 03

This is an integral part of Letter of Credit No. NZS592729

This credit is subject to :

☒ the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce,

or

☐ the Uniform Commercial Code.

SCHEDULE A

Identification of Facilities and Cost Estimates

Schedule A is referenced in the trust agreement dated March 19, 2007 by and between
Dugan Production Corp., the "Grantor", and Wells Fargo Bank NA,
the "Trustee."

EPA identification number _____

Name of facility West Bisti SWD #1 well

Address of facility 2500' FNL 1855' FEL

NE/4 Section 34, T26N, R13W

San Juan County, New Mexico

Current plugging and abandonment cost estimate \$31,000.00

Date of estimate 2/6/2007

EPA identification number _____

Name of facility _____

Address of facility _____

Current plugging and abandonment cost estimate _____

Date of estimate _____



United States Environmental Protection Agency
Washington, DC 20460

PLUGGING AND ABANDONMENT PLAN

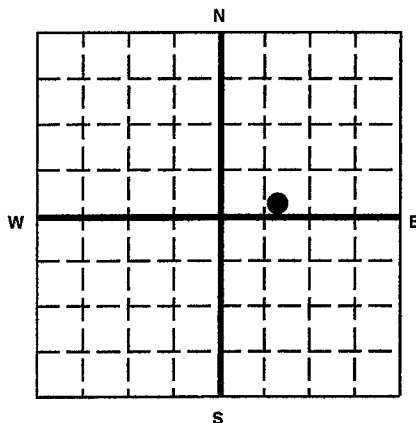
Name and Address of Facility

West Bisti SWD #1
Sec. 35, T26N, R13W, 2500' FNL-1855' FEL

Name and Address of Owner/Operator

Dugan Production Corp.
709 E. Murray Dr., Farmington, NM 87401

Locate Well and Outline Unit on
Section Plat - 640 Acres



State

NM

County

San Juan

Permit Number

Surface Location Description

1/4 of ___ 1/4 of SW 1/4 of NE 1/4 of Section 35 Township 26N Range 13W

Locate well in two directions from nearest lines of quarter section and drilling unit

Surface 2500' FNL & 1855' FEL of Sec. 35, T26N, R13W

Location ___ ft. from (N/S) ___ Line of quarter section

and ___ ft. from (E/W) ___ Line of quarter section.

TYPE OF AUTHORIZATION

- ☒ Individual Permit
☐ Area Permit
☐ Rule

Number of Wells ___

WELL ACTIVITY

- ☐ CLASS I
☒ CLASS II
☒ Brine Disposal
☐ Enhanced Recovery
☐ Hydrocarbon Storage
☐ CLASS III

Lease Name

Well Number West Bisti SWD #1

CASING AND TUBING RECORD AFTER PLUGGING

SIZE	WT (LB/FT)	TO BE PUT IN WELL (FT)	TO BE LEFT IN WELL (FT)	HOLE SIZE
8-5/8	24#	480'	480'	12-1/4"
5-1/2	15 5#	6400'	6400'	7-7/8"
5-1/2	17#	765'	765'	7-7/8"

METHOD OF EMPLACEMENT OF CEMENT PLUGS

- ☒ The Balance Method
☐ The Dump Bailer Method
☐ The Two-Plug Method
☐ Other

CEMENTING TO PLUG AND ABANDON DATA:

	PLUG #1	PLUG #2	PLUG #3	PLUG #4	PLUG #5	PLUG #6	PLUG #7
Size of Hole or Pipe in which Plug Will Be Placed (inches)	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"
Depth to Bottom of Tubing or Drill Pipe (ft)	6965'	5790'	4645'	2590'	1245'	895'	530'
Sacks of Cement To Be Used (each plug)	17-sks	17-sks	17-sks	34-sk	17-sk	17-sks	55-sks
Slurry Volume To Be Pumped (cu. ft.)	20-cf	20-cf	20-cf	20-cf	20-cf	20-cf	65-cf
Calculated Top of Plug (ft.)	6865'	5690'	4545'	1990'	1145'	795'	Surface
Measured Top of Plug (If tagged ft.)	---	---	---	---	---	---	---
Slurry Wt. (Lb./Gal.)	15.6#	15.6#	15.6#	15.6#	15.6#	15.6#	15.6#
Type Cement or Other Material (Class III)	Type 5	Type 5	Type 5	Type 5	Type 5	Type 5	Type 5

LIST ALL OPEN HOLE AND/OR PERFORATED INTERVALS AND INTERVALS WHERE CASING WILL BE VARIED (If any)

From	To	From	To
Proposed Pert			
6915'	7115'		

Estimated Cost to Plug Wells

\$30,050.00

Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

Name and Official Title (Please type or print)

Kurt Fagrelus, VP Exploration

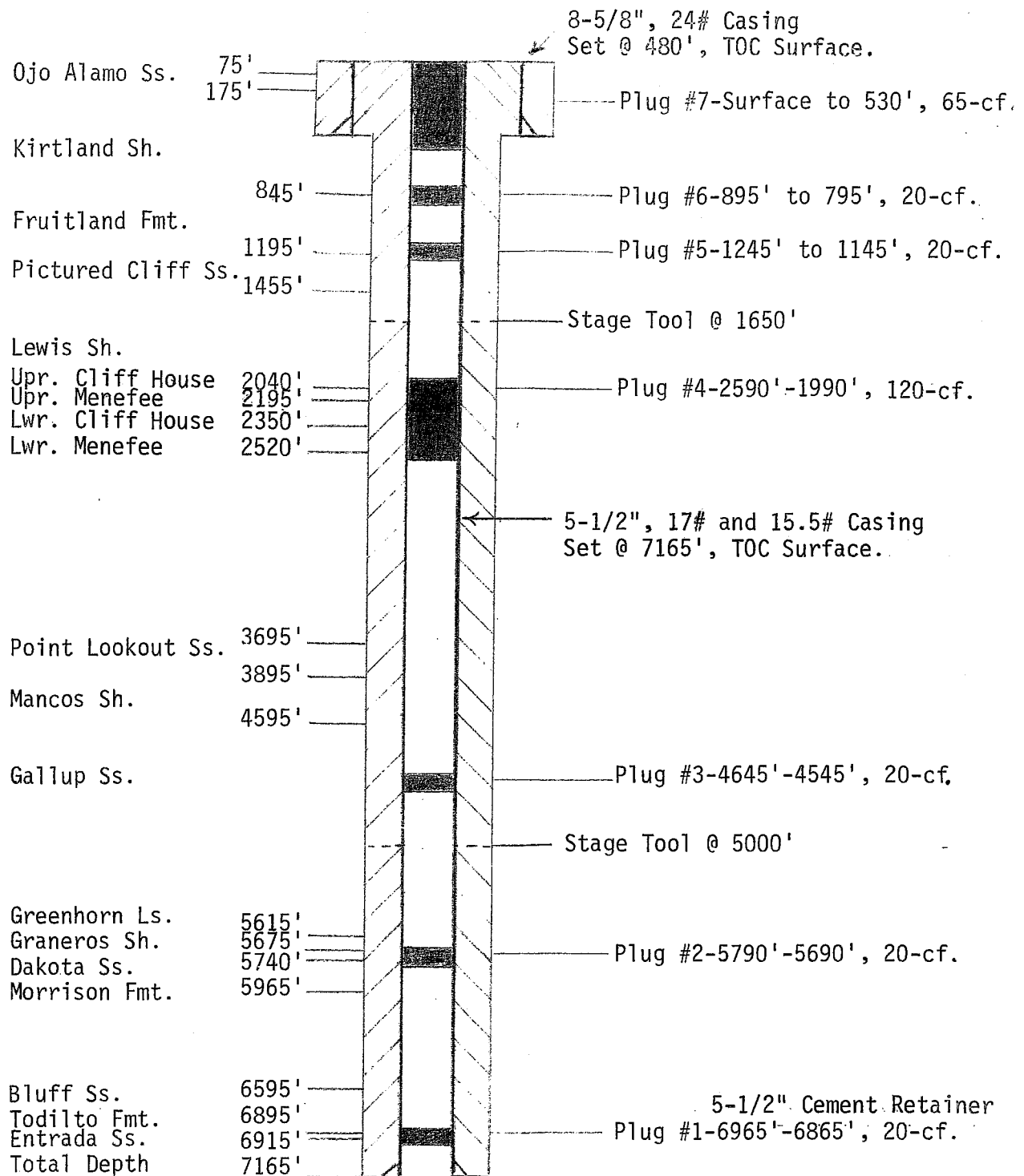
Signature

Kurt Fagrelus

Date Signed

2-2-2007

Well-Bore Diagram of Plugging and Abandonment Plan



Dugan Production Corp.
West Bisti SWD #1
Sec. 35, T26N, R13W
2500' FNL and 1855' FEL
San Juan County, New Mexico

Salt Water Disposal Application

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979
Farmington, New Mexico 87499
505-325-2627 * fax: 505-325-1211

February 6, 2007

Dugan Production Corporation
PO Box 420
Farmington, NM 87499

Re: Plugging Cost Estimate - **West Bisti SWD #1** Entrada Disposal Well
NE, Section 35, T26N, R13W
San Juan County, New Mexico

Gentlemen:

A-Plus Well Service is pleased to provide you with this estimate to plug and abandon the referenced well. We have evaluated the plugging procedure you provided and **A-Plus** agrees to provide:

- a double drum pulling unit with crew (36 hours rig time),
- crew travel (6 hours travel and 200 miles),
- cement services (cementer 4 days and 200 miles travel),
- 240 sxs Type III cement,
- one cement retainers,
- perforations (none),
- storage tank and water,
- wellhead removal,
- and an installed P&A marker,

necessary for the plugging of this well.

It is our understanding that **Dugan** would provide: rig anchors, a pit suitable for waste fluid holding and disposal of waste fluids and solids from this well.

A-Plus estimates the cost to plug the referenced well at **\$30,050.00 plus tax**. If needed, additional Type III cement is \$15.00 per sack and a 5.5" cement retainer is \$1050.00.

Please review this proposal and advise us of any questions you may have. This cost estimate is based on the information that you have provided and the planned plugging procedure. In the event the planned procedure is modified or deviated from, then any additional work or services provided by A-Plus will be paid for by the operator in accordance with A-Plus' current price schedule.

We look forward to the opportunity to work for you.

Sincerely,


Bill Clark

FEB 08 2007